OBSESSIVE COMPULSIVE SPECTRUM DISORDERS

- Daniel Zigman, MD, FRCPC

Objectives

- Describe the clinical features of OCD, BDD
- Understand how to evaluate for these disorders
- Describe evidence-based treatment options

Disclosures

- I have no financial relationships with industry

- I will be discussing off-label use of medications

Outline

- Overview of OCD Spectrum
- OCD
- Body Dysmorphic Disorder

The OCD Spectrum

- Disorders associated with dysfunctional repetitive thoughts or behaviors

OCD Spectrum Disorders

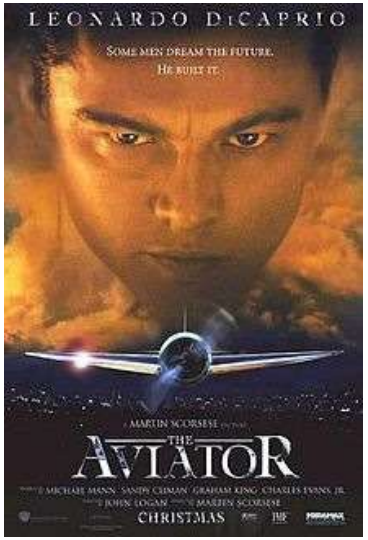
- DSM-V
  - OCD
  - Body dysmorphic disorder
  - Trichotillomania
  - Excoriation (Skin picking) disorder
  - Tourette syndrome
  - Hoarding Disorder

- Other
  - Anorexia nervosa, bulimia nervosa and binge eating disorder
  - Hypochonrdiasis
  - Paraphilias
  - Olfactory reference syndrome
  - Pathological gambling
  - Kleptomania, pyromania
  - Pica

OCD


MONK
NEW EPISODES JAN 8
FRIDAYS 9/8C
USA


NICOLAS CAGE
SAM ROCKWELL
ALISON LOHMAN
MATCHSTICK MEN
EAT
STEAL
RINSE
REPEAT


LEONARDO DiCAPRIO
SOME MEN DREAM THE FUTURE.
HE BUILT IT.
MARTIN SCORSESE
THE AVIATOR
CHRISTMAS

OCD Case examples

- 50 yo F. Recurrent intrusive thoughts that she will choke to death and spend eternity gasping for air. Must arrange objects, avoid certain numbers to prevent this from occurring

- 25 yo M with intel disability. Intrusive thought that he will contaminated by mould. Washes hand and takes long showers in response to commands by "the bossman" who tells him to do so. Recognizes the bossman as his own thoughts.

- 20 yo M. Recurrent intrusive thoughts that he is a pedophile because on several occasions got aroused by 13 year old girls. Very distressed by these thoughts and has no intention of acting on them.

Obsessions

- Recurrent and persistent thoughts, impulses, or images experienced as intrusive and cause marked anxiety

- Attempts to suppress or ignore or to neutralize them

Characteristics of Obsessions

- **Intrusive** - unintended and against one's will
- **Unacceptability** - annoyance, unpleasantness or distress
- **Subjective resistance** - urge to suppress through cognitive control strategies, avoidance or compulsions
- **Uncontrollability**
- **Ego-dystonicity** - inconsistent with respect to core values

Compulsions

- **Repetitive behaviors** *or* **mental acts** in response to an obsession *or* **rules applied rigidly**.
- Aimed at preventing or reducing distress *or* preventing some dreaded event.
- Could not realistically neutralize or prevent whatever they are meant to address *or* clearly excessive.
- Not performed for pleasure, but may reduce anxiety.

OCD Criteria DSM-5

- Obsessions and/or Compulsions
- Time consuming (>1hr) *or* marked distress *or* significantly interfere with functioning
- Not a result of the direct physiologic effects of a substance or a general medical condition.
- Not better explained another mental disorder
- *Specifiers*:
  - Insight - Good, fair, poor, absent
  - Tic related

Questioning about OCD

- Screening Question*:*
  - *"Do you have symptoms of an obsessive-compulsive disorder, such as needing to wash your hands all the time because you feel dirty, constantly checking things, or having annoying thoughts pop into your head over and over?"*

- If "yes", then check if **uncomfortably driven**
  - *When you check to make sure the door is locked, do you feel like you really have to check it, and that if you didn't you'd feel very uncomfortable?*

- Establish **interference** with activities and/or **distress**
  - *How many times do you check the door usually? Is it just once or twice or do you have to check it 10 or 20 times to be satisfied that it's locked? How much time do you spend checking*

Epidemiology

- Prevalence: 2-3%
- Bimodal age of onset: 10 years and 21 years
- Early onset: M>F, comorbid tic disorders

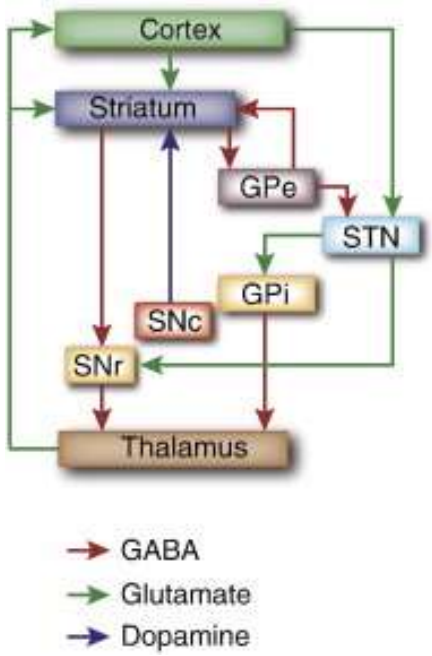
Neurobiology

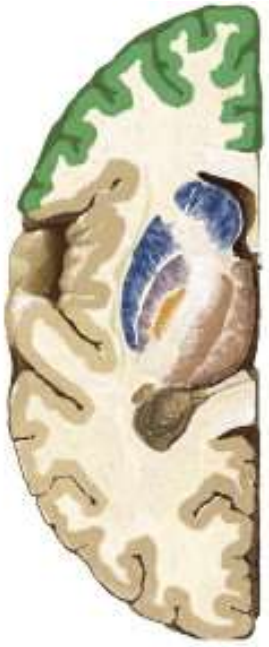
- Imaging data implicate:
  - Orbitofrontal cortex
  - Anterior cingulate
  - Caudate (basal ganglia)
  - Thalamus

- Pharmacological studies implicate:
  - Serotonin
  - Dopamine
  - Glutamate

Brain activity in OCD

- Most studies show hyperactivity in Cortico-Striatal-Thalamic circuit
  - OFC, ACC, Striatum, Thalamus
- Some studies correlate degree of hyperactivity with severity
- Some studies show improvement in hyperactivity with treatment





Pharmacological Models

- Serotonin
  - Serotonin reuptake inhibitors improve OCD symptoms
  - Serotonin 1B and 1D agonists can worsen OCD symptoms
- Dopamine
  - Adjunctive D2 antagonists improve OCD symptoms
  - Dopamine reuptake inhibitors (e.g. cocaine) and D2/3 agonists (e.g. pramipexole) induce compulsive behavior and stereotypic behaviors
- Neuroimaging studies show serotonin and dopaminergic dysfunction in drug-naïve OCD

Perani, *NeuroImage*, 2008

Phenomenology

- Contamination - Washing/Cleaning
- Pathological doubt - Checking
- Symmetry/"Just right" - Arranging
- Harm/Sexual thoughts - Neutralizing (praying, touching, counting etc..)

Obsession rating scale

Item	None (0 points)	Mild (1 point)	Moderate (2 points)	Severe (3 points)	Extreme (4 points)
Time spent on obsessions	0 hrs/day	0-1 hrs/day	1-3 hrs/day	3-8 hrs/day	>8 hrs/day
Interference from obsessions	None	Mild	Manageable	Severe	Incapacitating
Distress from obsessions	None	Mild	Moderate	Severe	Disabling
Resistance to obsessions	Always resists	Much resistance	Some resistance	Often yields	Completely yields
Control over obsessions	Complete control	Much control	Moderate control	Little control	No control
Obsession subtotal (add items 1-5)	_____	+ _____	+ _____	+ _____	+ _____ = _____

Comorbidity

- Major depressive disorder
- Tic disorders
- Other anxiety disorders
- Other OCD spectrum disorders
- Impulse control disorders
- ADHD

- 20-30% of patients with schizophrenia have OC symptoms
- Only 1.7% of OCD patients develop psychosis

Schirmbeck, Curr Neuropharmacol, 2012

Differential diagnosis

- Rumination in MDD
  - Themes of regret, self-worth, injustice
  - Congruent with negative mood
- Worry in GAD
  - Everyday (somewhat) realistic concerns
  - E.g. Getting into a car accident vs. having run someone over and not noticed
  - Absence of time consuming compulsions (though will sometimes need to check)

Differential diagnosis

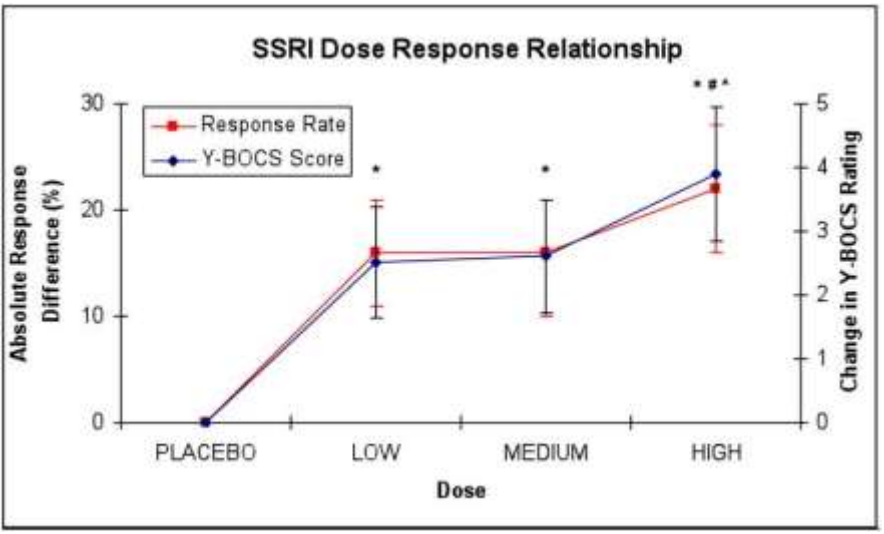
- OCD vs psychosis
  - Obsessions recognized as own thoughts
  - Obsessions usually highly stereotyped
  - Need to neutralize obsessions
- OCD vs suicidal/homicidal ideation
  - Thoughts are ego-dystonic and cause anxiety
  - Accompanied my neutralizing compulsions
- OCD vs OCPD
  - In OCPD, thoughts are ego-syntonic
  - They see others as not holding high enough standards
- OCD vs pedophilic disorder
  - In pedophilia they will almost always engage in behaviors at some point
  - If not, they will often engage in compensatory behaviors as an outlet

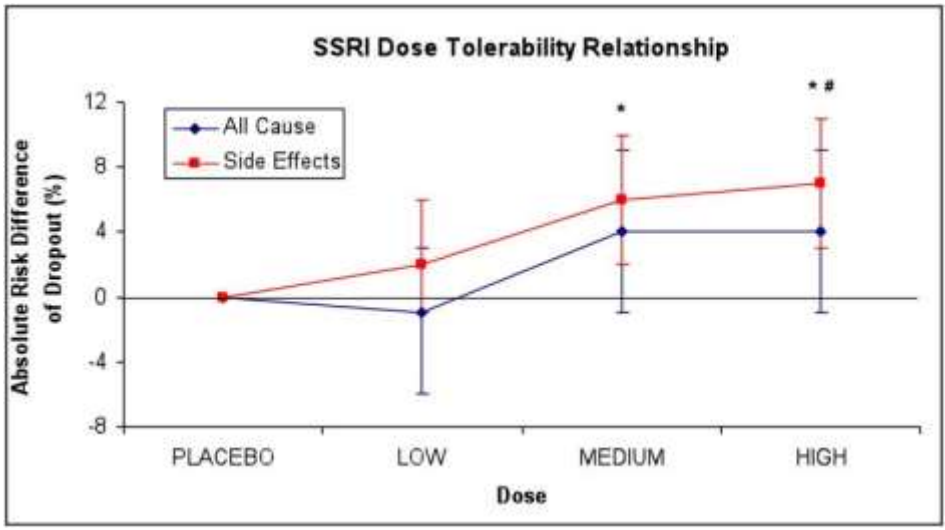
Pharmacotherapy

- All SSRIs and clomipramine have shown efficacy
- High doses are more effective
- Long durations required (up to 12 weeks)
- No convincing data that any one agent is better than another
- In practice, citalopram is often avoided due to HC warning

Fineberg, *Int J Neuropsychopharmacol*, 2012

In OCD, high-dose SSRIs may be more effective, but with more side effects





Bloch, Mol Psychiatry, 2010

Augmentation

- About 40-60% of patients will respond to monotherapy with SSRI (response defined as 35% improvement on YBOCS)
- Augmentation with antipsychotics and glutamate modulating medications may help treatment resistant cases

Arumugham, Expert Rev Neurother, 2013

Antipsychotics

- Risperidone (2-4 mg), aripiprazole (10-15 mg), haloperidol (2-5 mg) have strongest evidence
- Quetiapine and olanzapine have mixed data
- Paradoxically, some patients with schizophrenia can have de novo or worsening of OCD symptoms with SGAs, especially clozapine

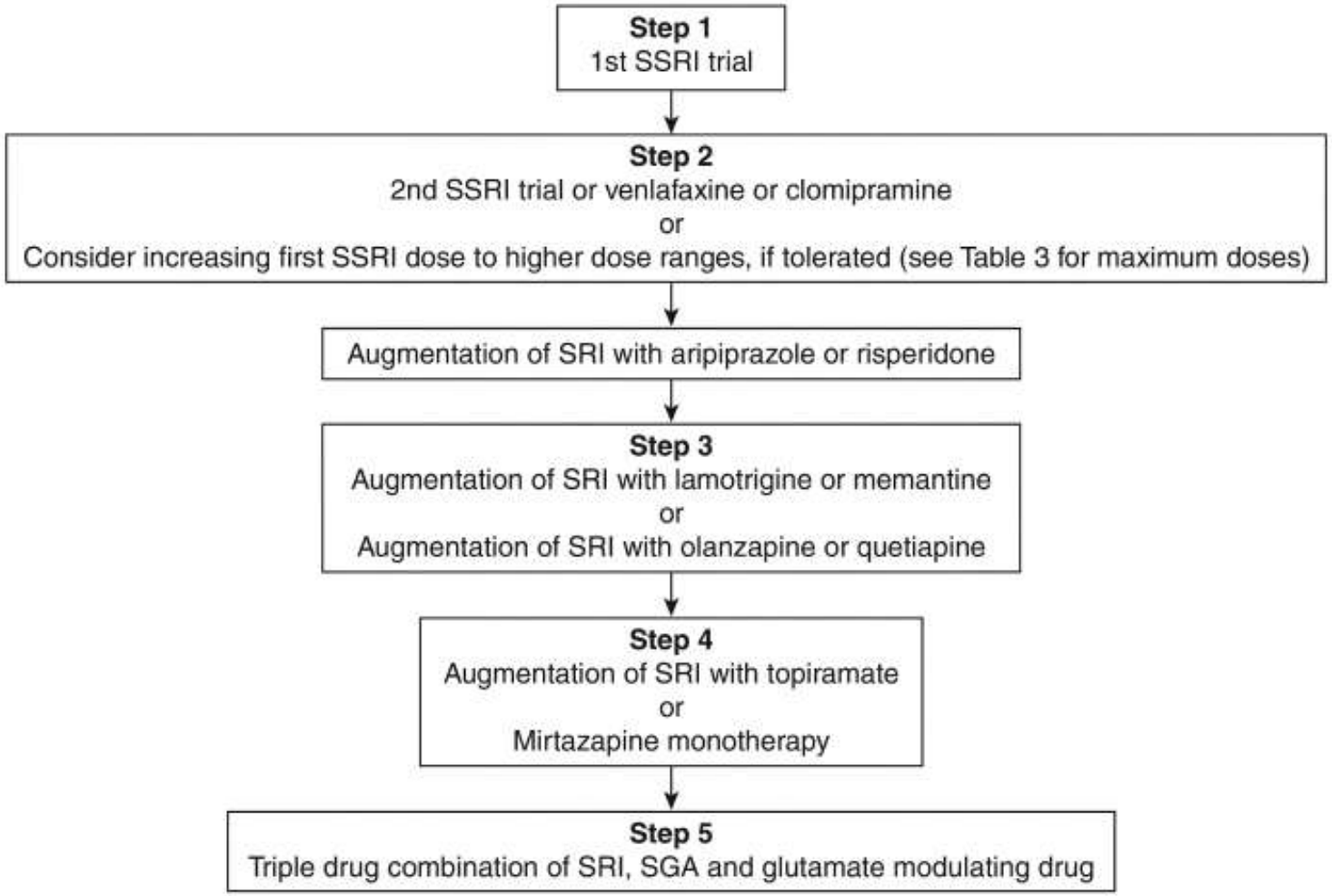
Arumugham, Expert Rev Neurother, 2013

Glutamate modulating drugs

- Lamotrigine 100-200 mg
- Memantine 10 mg bid
- N-actylcysteine 1200 mg bid
- Topiramate 50-200 mg (for compulsions)

Arumugham, Expert Rev Neurother, 2013

Figure 1: Drug Therapy for Obsessive-Compulsive Disorder[a]



[a] Attempt a 6-week trial for each drug therapy recommendation before moving to the next step.

Abbreviations: SSRI = selective serotonin reuptake inhibitor; SRI = serotonin reuptake inhibitor (referring to SSRI, venlafaxine or clomipramine); SGA = second-generation antipsychotic

Zigman, Sookman. 2018. *Compendium of Therapeutic Choices 2019.*

Neurosurgery

- 50-60% response rate in resistant cases
- Ablative techniques, gamma-knife
  - Cingulotomy, capsulotomy, subcaudate tractotomy, limbic leucotomy
- Deep brain stimulation
  - ventral capsule/ventral striatum

Arumugham, Expert Rev Neurother, 2013

Psychotherapy

- CBT / BT - exposure and response prevention combined with cognitive techniques
  - Home visits
  - Family involvement (prevent family from helping with rituals)
- May be more effective than SGA augmentation for SSRI resistant cases
- Supportive and psychodynamic not effective

Blair-Simpson, *JAMA Psychiatry.* 2013;70(11):1190-1199

Cognitive Techniques

- Normalization of obsessions:
  - Intrusive thoughts along lines of obsession themes are common in general population
  - Becomes pathological due to *importance* and *meaning* attached to the thoughts (e.g. If I have the thought of drowning my baby, it means I'm a horrible person)
- Role of neutralization
  - Attempting to suppress the thought makes it occur more often (e.g. "Don't think of a pink elephant!")
  - Goal is to have patient "do nothing" in response to obsession

Clark, CBT For OCD, 2004

APPENDIX 9.1. Endorsement Rates for the Most Common Unwanted Obsession-Relevant Intrusive Thoughts, Images, and Impulses Reported by Nonclinical Subjects

Unwanted thought	% women	% men
1. Did I leave heat, stove, or lights on that could cause a fire?	79	62
2. Left the door unlocked, and an intruder could be inside.	77	65
3. While driving, an impulse to run the car off the road.	64	53
4. I could get a sexually transmitted disease from touching a toilet seat or handle.	60	40
5. Even though the house is tidy, an impulse to check that absolutely everything is put away.	52	40
6. Feel sudden impulse to say something rude or insulting to a friend even though I'm not angry at him.	59	55
7. Impulse to say something rude or insulting to a stranger.	50	55
8. While driving, the impulse to swerve the car into oncoming traffic.	55	49
9. The thought of having sex in a public place.	55	67
10. The thought of having sex with an authority figure (e.g., minister, boss, teacher).	51	62
11. While driving, the thought of running over pedestrians or animals.	46	51
12. When talking to people, intrusive thought of their being naked.	44	63
13. Impulse to indecently expose myself by lifting my skirt or slipping down my pants.	14	24
14. Impulse to masturbate in public.	11	18
15. When I see a sharp knife, the thought of slitting my wrist or throat.	20	22
16. When in a public place, the thought of becoming dirty or contaminated from touching doorknobs.	35	23

Data from Purdon and Clark (1993) and Byers et al. (1998).

Clark, CBT For OCD, 2004

Exposure and Response Prevention

- The most important CBT technique
- Patient places self in situation where obsession is triggered and resists urge to complete compulsion
- Patient monitors thoughts and emotions during the exercise
- Can be used to challenge faulty beliefs

Clark, CBT For OCD, 2004

Prognosis

- 144 inpatients with OCD assessed 40 years after initial diagnosis
  - ~80% improved
  - 50% still had OCD
  - Only 20% completely recovered (no sub-clinical symptoms)
  - Early recovery associated with good prognosis
  - Magical obsessions associated with poor prognosis

- 142 Children & adol reassessed mean of 5 years later
  - 40% still had OCD
  - 2/3 rated as "very much improved"
  - Duration of OCD was primary predictor of persistence
  - 70% still met criteria for at least one Axis I disorder

  - A period of at least 1 week being house-bound due to symptoms is a negative prognostic factor

Skoog, *JAMA Psychiatry*, 1999
Micali, *Br J Psychiatry*, 2010
McLaughlin, *J Clin Psychiatry*, 2015

Body Dysmorphic Disorder

Case example

- 20 F brought to ER for incapacitating anxiety and distress over the state of her teeth.
- Was told she had cavities. Crying every night. Worries about cavities constantly, repetitively checking in the mirror, comparing them to other's people's teeth. Convinced the cavities were noticeable by others despite her parents reassuring. Avoided speaking to hide her teeth, avoided eating to prevent cavities from worsening. Believed "destroyed" teeth and felt overwhelmingly guilty. Depressive symptoms present.
- 6 months ago, worried about scars of her body. Sees scars everywhere on body though others couldn't. Wore long sleeved shirts to hide them. Spent hours checking her arms and legs for new scars. Lasted several months.

What is BDD?

- BDD is a body-image disorder characterized by persistent and intrusive preoccupations with an imagined or slight defect in one's appearance.

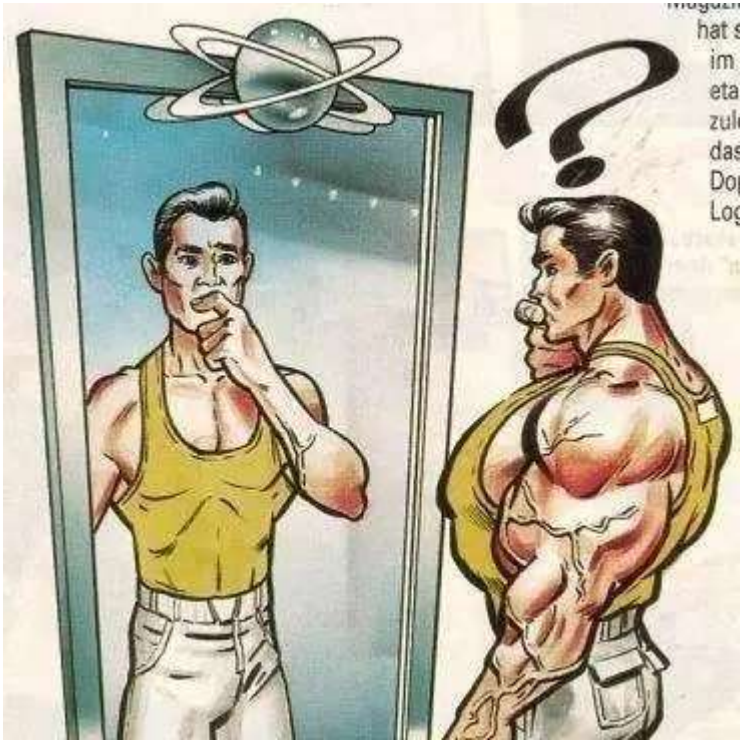
- Classified as an Obsessive Compulsive Spectrum Disorder

DSM-V Criteria

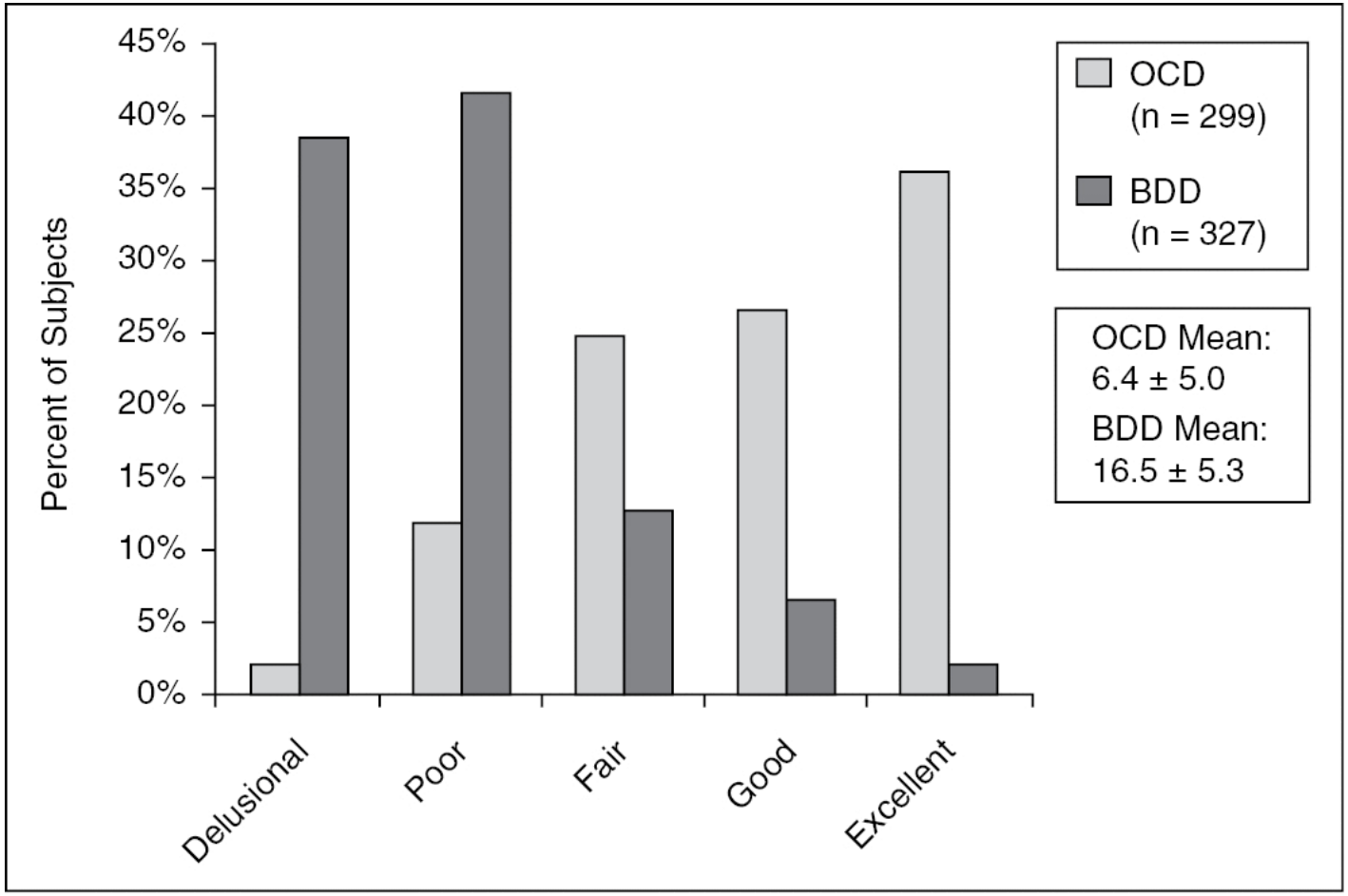
- Preoccupation with **one or more perceived defects or flaws** in physical appearance that is **not observable or appears slight to others** (not evident at a conversational distance)
- At some point, individual has performed **repetitive behaviors** or mental acts in response to concerns
- The preoccupation causes clinically significant distress or impairment
- The appearance preoccupations are not restricted to concerns with body fat or weight in an eating disorder

Specifiers / Subtypes

- Muscle dysmorphia (“Megarexia”)
  - Believe that their body is not sufficiently lean or muscular
  - Compulsively diet and exercise
  - Often use AAS
- BDD by Proxy
  - Preoccupied by appears of a family member (usually child) or partner
- Level of insight



Insight is frequently impaired in BDD



BDD vs. Normal Appearance Concerns

- Up to 56% F and 43% M dissatisfied with appearance
- Does not rise of level of preoccupation and disability seen in BDD
- BDD patients spend on average 3 to 8 hours per day thinking about their appearance or engaging in compensatory behaviors.

http://viralthread.com/this-is-what-its-like-living-with-body-dysmorphic-disorder/

Philips, BDD: Advances in Research and Clinical Practice, 2017

Epidemiology

- About 2-3% point prevalence using DSM-5 criteria
  - About 13% in cosmetic surgery clinics (20% in rhinoplasty clinics)
  - About 25% of men with BDD have muscle dysmorphia
- Onset usually in teens
- M ≈ F
- High rates of
  - Suicidality 30%
  - Depression 40%
  - Anxiety 70%
  - Substance use disorders

Pavan, Aesthe Plast Surg, 2008

Clinical Features

- Mean involvement of 5 body parts
- Face, skin, hair, genitals most common
- Often concerns about body symmetry or muscularity

Pavan, Aesthe Plast Surg, 2008

Body Part	% of Patients with Concern*
Skin	73
Hair	56
Nose	37
Weight	22
Stomach	22
Breasts/chest/nipples	21
Eyes	20
Thighs	20
Teeth	20
Legs (overall)	18
Body build/bone structure	16
Ugly face (general)	14
Face size/shape	12

Repetitive behaviors

- Camouflaging (91%)
- Comparing with other people (88%)
- Checking one's appearance in mirrors (87%)
- Excessive grooming (59%)
- Reassurance seeking (54%)
- Touching the disliked body areas (52%)
- Clothes changing (46%)
- Dieting (39%)
- Skin picking to improve appearance (38%)
- Tanning to improve a perceived appearance flaw (22%)
- Excessive exercise & weightlifting (21%)
- Taking selfies & videos
- Searching for information online

Philips, BDD: Advances in Research and Clinical Practice, 2017

Under-recognition

- Rarely present to mental health practitioners seeking treatment for BDD
  - E.g. only 8% of BDD patients followed in VA mental health clinic had been diagnosed with the condition (Kelly 2015)
- Rarely disclose their symptoms to mental health practitioners
  - Feel shame, worry about being seen as vain
  - Have poor insight
- In Internet study, 80% of self-identified BDD sufferers had not received any treatment (Buhlmann 2011)
- Mean delay in diagnosis of 15-16 years since onset of symptoms

Kelly, Psychiatry Res, 2015 228(1):162-5
Buhlmann *J Nerv Ment Dis.*2011;199:268-271.

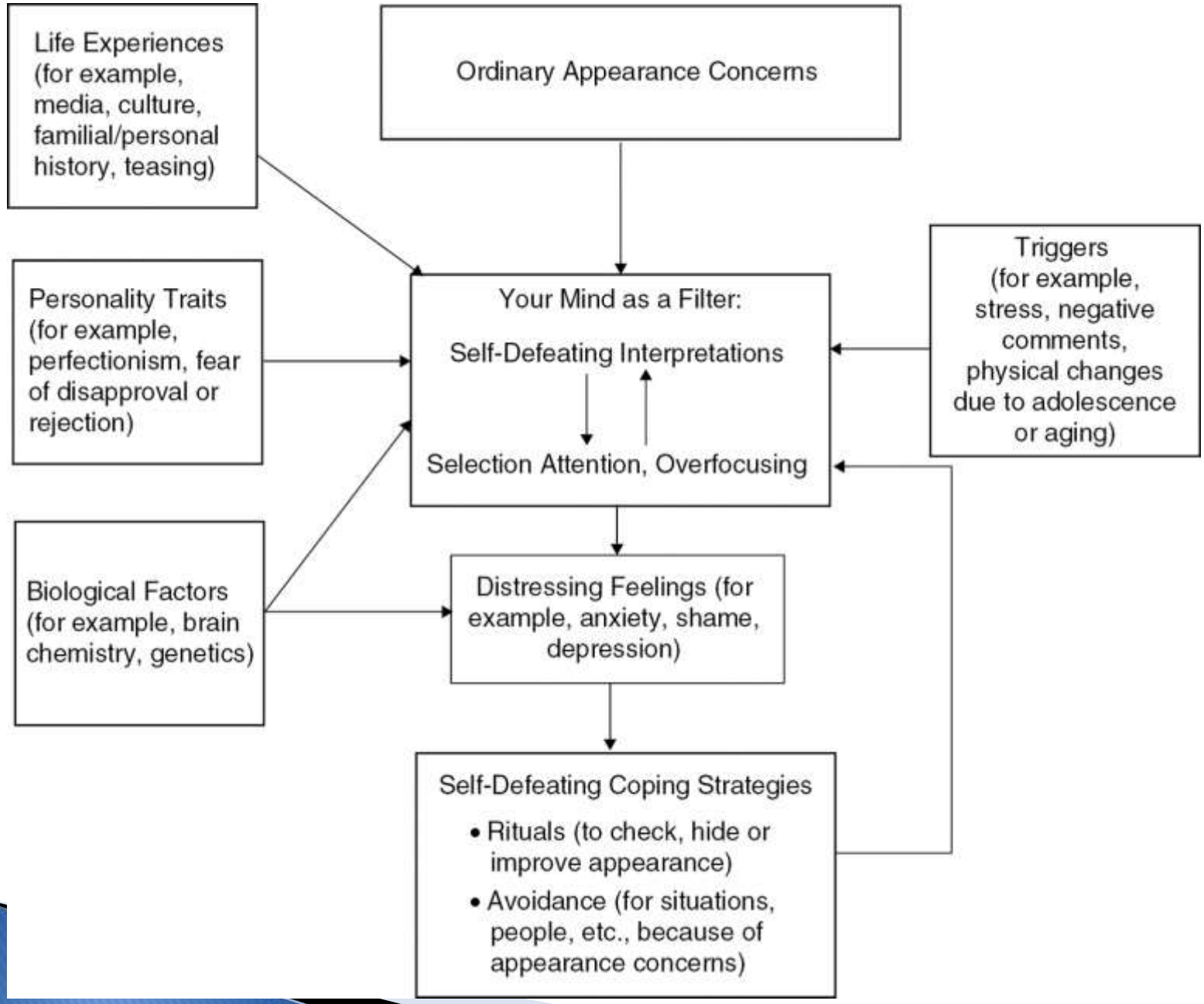
Etiology

- Information processing errors
  - Over-activity of “detail oriented” left brain cortex structures and under-activity of “big picture” oriented right-brain structures
  - Selective attention to only perceived negative aspects of appearance

- Poor insight associated with **disorganization in white matter tracts** between visual and emotion/memory systems, and between hemispheres.

- Personal experiences
  - Teasing
  - Media exposure
  - Perfectionism + unrealistic standards

Feusner, Body Image, 2008


Life Experiences (for example, media, culture, familial/personal history, teasing)
Ordinary Appearance Concerns
Personality Traits (for example, perfectionism, fear of disapproval or rejection)
Your Mind as a Filter:
Self-Defeating Interpretations
Selection Attention, Overfocusing
Triggers (for example, stress, negative comments, physical changes due to adolescence or aging)
Biological Factors (for example, brain chemistry, genetics)
Distressing Feelings (for example, anxiety, shame, depression)
Self-Defeating Coping Strategies
• Rituals (to check, hide or improve appearance)
• Avoidance (for situations, people, etc., because of appearance concerns)

BDD and Cosmetic Surgery

- Usually first contact with medical system
  - >70% pursued cosmetic treatment and >60% received treatments
- Cosmetic surgery rarely helps
  - <5% of BDD patients are satisfied with outcome long-term
  - May have short term relief, then shift to another preoccupation
- 29% of cosmetic surgeons have been threatened legally by a patient with BDD
- Patients may be at risk of suicide if expectations not met

Philips, BDD: Advances in Research and Clinical Practice, 2017

Detecting BDD patients in a cosmetic dermatology / plastics clinic

- 1. “Are you very worried about your appearance in any way?” OR: “Are you unhappy with how you look?”
- 2. “What don’t you like about how you look?”
- 3. “Are you unhappy with any other aspects of your appearance, such as your face, skin, hair, nose, or the shape or size of any other body area?”
- 4. “How much time would you estimate that you spend each day thinking about your appearance, if you add up all the time you spend?”
- 5. “Is there anything that you do over and over again in response to your appearance concerns?”
- 6. “Do these concerns interfere with your life or cause problems for you in any way?”

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BDDQ – A validated screening tool in cosmetic and reconstructive suregry settings

- +ve screen if
- Yes to 1
- Yes to any in 3
- B or C in 4

- 100% sensitivity
- 90% specificity

Body Dysmorphic Disorder Questionnaire (BDDQ)

Name_____ Date_____

This questionnaire asks about concerns with physical appearance. Please read each question carefully and circle the answer that is true for you. Also write in answers where indicated.

1) Are you worried about how you look? Yes No

--If yes: Do you think about your appearance problems a lot and wish you could think about them less? Yes No

--If yes: Please list the body areas you don't like:_____
_____
_____

Examples of disliked body areas include: your skin (for example, acne, scars, wrinkles, paleness, redness); hair; the shape or size of your nose, mouth, jaw, lips, stomach, hips, etc.; or defects of your hands, genitals, breasts, or any other body part.

NOTE: If you answered "No" to either of the above questions, you are finished with this questionnaire. Otherwise please continue.

2) Is your main concern with how you look that you aren't thin enough or that you might get too fat? Yes No

3) How has this problem with how you look affected your life?

- Has it often upset you a lot? Yes No
- Has it often gotten in the way of doing things with friends, dating, your relationships with people, or your social activities? Yes No

  --If yes: Describe how:_____
  _____
- Has it caused you any problems with school, work, or other activities? Yes No

  --If yes: What are they?_____
  _____
- Are there things you avoid because of how you look? Yes No

  --If yes: What are they?_____
  _____

4) On an average day, how much time do you usually spend thinking about how you look? (Add up all the time you spend in total in a day then circle one.)

(a) Less than 1 hour a day (b) 1-3 hours a day (c) More than 3 hours a day

Dey JK, et al. Body dysmorphic disorder in a facial plastic and reconstructive surgery clinic: measuring prevalence, assessing comorbidities, and validating a feasible screening instrument. JAMA Facial Plastic Surgery 2015;17:137-143

Treatment: Pharmacotherapy

- SSRIs and clomipramine at high doses for long duration (12-16 weeks) most effective
- No evidence that presence of "delusion" requires treatment with antipsychotic. Instead, implies a more severe form of BDD
- Only 22% of patients who tried SRI had a “minimally adequate” trial
- Open studies suggest potential benefit from buspirone + SSRI, SGAs +SSRI

Philips, BDD: Advances in Research and Clinical Practice, 2017

Treatment: CBT

- Often requires motivational interviewing (exploring pros + cons of change)
- Exposure and response prevention
- Perceptual retraining – nonjudgmentally describe their entire body in a mirror for 5 min from an arm`s length away
- Identify maladaptive beliefs
  - "As long as I have this deformed nose, no one will love me and I will never be happy"
  - -> “Even if my nose is deformed, I can still live a meaningful life. There is more to a person than their outward appearance.”

Philips, Body Image, 2008

Communicating with BDD Patients

- **Don't:**
  - Say that there is "nothing wrong with them"
  - Reassure them that they "look good"
  - Suggest other abnormalities in their appearance that they did not mention themselves ("e.g. I don't see acne but you have a little scar on your chin")

- **Do:**
  - Explain that you do not perceive the "flaws"
  - Explain that you are concerned that they have a "body image problem" that will not benefit from surgery
  - Empathize with their distress and suffering
  - Explain what BDD is and that it is a treatable mental health problem

Philips, BDD: Advances in Research and Clinical Practice, 2017

Strategies for poor insight

- **Providing a neurobiological explanation:**
  - Explain BDD as a problem of visual processing, an imbalance in “big-picture” vs. “detail oriented” visual processing, similar to anorexia nervosa
  - Explain BDD as a circuit in the brain that is too active, similar to OCD
  - Explain that treatments (CBT and medications) can help normalize brain functioning

Philips, BDD: Advances in Research and Clinical Practice, 2017

Strategies for poor insight

- **Using the Theory A vs. Theory B technique**
  - *Theory A – the problem is your actual appearance. This means that you try very hard to check on how exactly you look and to hide or alter your appearance. However, your solutions become your problem and cause you to become increasingly preoccupied and distressed by your appearance and have a poor quality of life*
  - *Theory B – this is an emotional problem, which makes you excessively self-conscious about your appearance. This may be linked to some of your early experiences (for example, of being teased and bullied). Have you noticed that solving it as an appearance problem (Theory A) actually makes your preoccupation and distress worse? Would you be willing to act as if it were Theory B for at least 3 months? If Theory B were true, what would this mean for how you cope?*

Philips, BDD: Advances in Research and Clinical Practice, 2017

Where to send patients

- **Guichet Access en Sante Mental**
  - General psychiatry outpatient assessment
- **Anxiety Disorders Program MUHC**
- **Private Community Psychologists with CBT + OCD experience**
  - E.g. Connecte Psychology, Montreal Psychology Centre
- **McGill / Concordia Mental Health Services**
- **AMI Quebec**
  - Peer and family support

Philips, BDD: Advances in Research and Clinical Practice, 2017

Summary

- OCD, and BDD are common and often chronic OCD spectrum disorders
- They involve dysfunctional information processing and decision making
- They are treated with adapted CBT focusing on exposure and response prevention
- They are all treated with high-dose of SRI as first-line agents. Glutamate and dopamine modulation agents may also be effective